Defense Advanced Research Projects Agency (DARPA) Proposer Information Pamphlet (PIP) BAA06-09 Topologically Controlled Lightweight Armor (TCLA)

This Proposer Information Pamphlet (PIP) is provided as a supplement to Broad Agency Announcement (BAA) 06-09. The information given is provided to help in proposing. However, in case of a conflict between this PIP and the BAA, the instructions in the BAA will take precedence.

TCLA, BAA06-09, Proposals Due: 4:00 PM ET, February 20, 2006.

PROGRAM OBJECTIVES AND DESCRIPTION

1.0 Program Objective

The Defense Sciences Office (DSO) of the Defense Advanced Research Projects Agency (DARPA) is seeking proposals to develop improved vehicle armor materials and/or systems in a Topologically Controlled Lightweight Armor (TCLA) program. The vision for the TCLA program is to exploit the concept of topological arrangements of multiple materials to achieve ballistic performance beyond what can be achieved through material chemical or compositional changes alone, and to deliver the improved performance at a reasonable cost. The TCLA program will take a comprehensive approach, and submissions are expected to address materials development/manufacturing, testing, and modeling. Teaming among proposers with skills in these areas is encouraged. The parallel goals for the TCLA program are high performance against multiple threats and low cost relative to comparable state-of-the-art armor systems. Table 1 outlines the performance and cost goals for the TCLA program.

Table 1. TCLA Program Metrics.

	Phase I				Phase II			
Threat→	7.62x39mm (AK-47)	7.62x54mm API	0.50cal. FSP	IED	7.62x39m m (AK- 47)	7.62x54 mm API	0.50cal. FSP	IED
Performance (lb/ft²) Areal Density at equal V ₅₀	<½ RHA	<½ RHA	<1/2 RHA	Defeat one simulated IED round.	<1/3 RHA	<1/3 RHA	<1/3 RHA	Defeat two simulated IED rounds.
Cost (\$/ft²) Component level (e.g., vehicle panel at low rate production)	Justify Phase II cost projection	Justify Phase II cost projection	Justify Phase II cost projection	Justify Phase II cost projection	<½ RHA	<½ RHA	<½ RHA	<½ RHA

<u>RHA</u>: Rolled homogeneous armor steel conforming with MIL-A-12560. RHA is the reference material for vehicle armor against which other materials are measured.

<u>V50</u>: V50 protection ballistic limit. The velocity, in feet/second or meters/second, at which an armor panel of a given areal density has a 50% probability of stopping the projectile. The V50 testing will be conducted in accordance with MIL-STD662F at zero degree obliquity.

FSP: Fragment simulation projectile. FSPs are cylindrical projectiles conforming with MIL-P-46593A.

The TCLA effort will be conducted in two phases: a 12-month Phase I and an 18-month Phase II. Proposers are requested to submit a proposal that addresses the technical effort in both phases. The final product at the end of Phase II will be an armor material system design and manufacturing method that can be immediately transitioned to the Services.

2.0 Background and Motivation

Operations in Iraq and Afghanistan have demonstrated the need for ubiquitous force protection against dispersed threats such as snipers and improvised explosive devices (IED). To counter these threats, the military has adopted either heavy conventional armor or costly state-of-the-art lightweight armor. The heavy weight and high cost limit the situations in which high levels of protection can be utilized. A new approach to armor and force protection is needed to allow for better tradeoff between weight and cost.

Because of critical needs for ubiquitous protection, there is an opportunity to rapidly transition promising armor technologies for employment in the field. Through this effort, new and innovative approaches to armor development will be investigated. Successful armor systems will be scaled-up. DARPA will work closely with the Services to transition systems with the required performance and cost metrics at any point during the program.

3.0 Scope

The focus of the TCLA program is to develop improved armor systems for military vehicles. The unifying theme of the program is that the topology, or arrangement of the materials in the armor, is the key to the performance. There is no requirement to include specific classes of materials, although it is anticipated that successful systems may be combinations of more than one material type. Passive armor systems are desired; however, non-passive systems operating within the confines of the armor will be considered. "Bullet-on-bullet" or similar techniques that use a projectile or directed energy to defeat a threat beyond the plane of the armor panel are outside the scope of this program.

The TCLA program emphasizes the concept that the topology of an armor material system in which controlled one-, two-, and three-dimensional features embedded in a compatible matrix can provide the opportunity for the interaction of multiple projectile defeating mechanisms. These material designs should be amenable to production using commercially available mass—manufacturing techniques, creating an opportunity for delivering armor systems rapidly and at low cost. The use of high-rate production techniques is not required for Phase I; however, proposers are expected to demonstrate a clear pathway to mass produce complex shapes (e.g., vehicle doors) at the end of Phase II.

Armor systems developed under this effort will be subjected to testing protocol established for measuring the performance metrics outlined in Table 1. A fragment simulation projectile (FSP)

test will be used to simulate the threat from IED. Testing with 0.50 caliber (12.7mm) FSP allows for the use of relatively small panels in the TCLA program, reducing the need for large manufacturing capabilities during the development stage. The 7.62x39mm and 7.62x54mm Armor Piercing Incendiary (API) rounds will be used to test performance against rifle fire. It is expected that testing of larger-caliber fragments or ammunition using larger panels will be included at the end of each phase based on guidance provided by the Services.

Proposers to the TCLA program are expected to establish the following:

- A multidisciplinary armor team exploiting the concept of topological arrangemts of multiple materials to achieve ballistic performance beyond what can be achieved through material chemical or compositional changes alone (i.e., going beyond employing known high-end ceramics, composites, and metals) to deliver the improved performance at a reasonable cost.
- The experimental efforts in TCLA will be closely coupled and complemented with a strong modeling and simulation activity. The modeling effort can incorporate analytical and expert system ballistic modules integrated to provide a "rule and tool" set, enabling design and production of armor to defeat rapidly changing threats.
- Establish the defeat mechanisms behind the TCLA armor design at a sufficient detail to enable changing the design with evolving threats.

3.1 Program Milestones

The goals for this program are very aggressive, but straightforward. The success of program participants will be judged according to only two criteria: comparative ability to stop a specified list of threats and projected cost to manufacture the finished armor system (see Table I). However, participants are expected to set intermediate milestones to ensure adequate progress toward the program goals.

It is understood that some proposers will not have preliminary ballistic test data available when projecting the performance of their new armor concepts. In those cases, a description of the projectile-defeating mechanism based on the fundamental physics of the design should be provided.

There may be a downselect of participants at the end of Phase I, depending on the technical results and availability of funding. Phase II, for those selected to continue, will culminate in delivery of the final product, an advanced vehicle armor system.

3.2 Team Organization

The goals of the TCLA program demand that a successful proposal will involve participation by a multi-disciplinary team. It is anticipated that teams will include capabilities in more than one of the following disciplines:

- Materials science, including ceramics, metallurgy, composites, and/or polymers
- Engineering
- Manufacturering
- Ballistics
- Modeling & simulation (e.g., finite element analysis, shock physics)

DARPA will coordinate all testing at the end of Phases I and II to ensure that armor performance is judged consistently by an objective organization. However, proposers are encouraged to include resources for interim ballistic testing to aid in armor and model development efforts.

3.3 Teaming Arrangements

Proposers are encouraged to team with the cognizant National and Service Laboratories, particularly for modeling and testing components of the program. The laboratories have a deep knowledge base in science and engineering related to armor materials, effects of military threats, and numerical and simulation methods. Proposers that focus in only one discipline may be asked to team with other organizations. Since team composition will improve the chances of success of this program, a teaming website will be set up to facilitate these interactions (www.sainc.com/TCLA_Teaming).

4.0 General Information

Proposals not meeting the format described in this pamphlet may not be reviewed. Proposals MUST NOT be submitted by fax; any so sent will be disregarded. This notice, in conjunction with the BAA06-09 FedBizOpps Announcement and all references, constitutes the total BAA. In any conflict between this PIP and the published BAA, the BAA takes precedence.

A Frequently Asked Questions (FAQ) list will be provided on the Teaming Website. Proposers may submit questions to the following website: www.sainc.com/TCLA_Teaming.

No additional information is available, nor will a formal Request for Proposal (RFP) or other solicitation regarding this announcement be issued. Requests for same will be disregarded.

All responsible sources capable of satisfying the Government's needs may submit a proposal that shall be considered by DARPA. Small Disadvantaged Businesses (SDB), Historically Black Colleges and Universities (HBCUs) and Minority Institutions (MIs) are encouraged to submit proposals and join others in submitting proposals. However, no portion of this BAA will be set aside for SDB, HBCU and MI participation due to the impracticality of reserving discrete or severable areas of this research for exclusive competition among these entities.

Unclassified proposals may be submitted through the website specified in Section 5.0.

4.1 Security Guidelines

At least one member of the proposing team (preferably the team lead) must either have a SECRET security clearance or be willing to obtain such a clearance. Security classification guidelines for armor materials have been developed by the Army Research Laboratory Weapons and Materials Research Directorate, and these guidelines will be provided to contractors at the start of the program. Data regarding the performance of armor against specific military threats is sensitive and, in some cases, classified as CONFIDENTIAL or SECRET. It is possible that during the course of the program classified ballistic test data will be withheld from contractors who have not yet obtained the necessary clearances. Distribution of ballistic testing results should be limited to the program participants (contractor and subcontractors) unless directed otherwise by the DARPA Program Manager.

The TCLA program may include information controlled under the International Traffic in Arms Regulation (ITAR), 22 CFR 120-130, therefore contractors may be required to protect information pursuant to ITAR and are encouraged to consider this when proposing.

5.0 Submission Process

Proposals will be accepted immediately upon publication of the BAA and at any time until the final proposal deadline of 4:00 PM ET, February 20, 2006. White papers are not required for this program and will not be evaluated.

Proposals will be evaluated against the criteria set forth in Section 7.0 of this PIP, and an offeror will be notified either that: 1) the proposal has been selected for funding, or 2) the proposal has not been selected for funding. Proposers may elect to have their proposal withdrawn from consideration at any time during the evaluation process. If a formal request is not made, DARPA will assume that continued evaluation is desired. Proposals not conforming to the instructions provided in the BAA and PIP may not be evaluated at the discretion of the Government.

The following website has been established to facilitate the submission of full proposals electronically: http://www.sainc.com/dso0609. This site will allow the filling in of contact information and the uploading of a full proposal created with the requirements listed below and the uploading of a document in either Word or PDF format. Note: if the website is not used, please use the U.S. mail system or the BAA e-mail account. If submitting via e-mail, the body of the e-mail AND the attachment must include name, mailing address, phone number, and fax number of the proposer. If this information is not contained in the body, the e-mail will be returned for inclusion of that information. If offerors choose to submit by U.S. Mail, they should submit one (1) original and three (3) copies of the full proposal to the address in Section 8.0. Proposals will not be accepted by way of facsimile transmission.

Restrictive notices notwithstanding, proposals may be handled for administrative purposes by support contractors. These support contractors are prohibited from competition in DARPA/DSO technical research and are bound by appropriate non-disclosure requirements. Input on technical aspects of the proposals may be solicited by DARPA from non-Government consultants/experts who are also bound by appropriate non-disclosure requirements. However, non-Government technical consultants/experts will not have access to proposals that are labeled by their offerors as "Government Only." Use of non-Government personnel is covered in FAR 37.203(d).

6.0 Proposal Format

The descriptions contained in this section are to help proposers ensure that proposals have sufficiently detailed information to be evaluated. Full proposals to the TCLA program shall consist of two volumes, technical and cost. Both volumes should be included as a single document when uploading to the website.

6.1 Volume I: Technical

This volume provides the detailed discussion of the proposed work necessary to enable an indepth review of the specific technical and management issues. Specific attention must be given to addressing both the risk and payoff of the proposed work that make it desirable to DARPA.

While it is expected that the technical details of the Phase I effort will be more fully discussed, the proposal must cover both Phase I and Phase II of the proposal.

The Technical Volume shall not exceed 25 pages in 12-point font, and shall include a one-page Executive Summary and address sections A through I below. While proposers are free to decide the emphasis given to each section, the suggested page lengths for each section are shown in braces { } below, where applicable.

A. Innovative claims for the proposed research {1 Page}. This page is the centerpiece of the proposal and should succinctly describe the unique proposed contribution.

- B. Proposal Roadmap {1 Page}. The roadmap provides a top-level view of the content and structure of the proposal. It contains a synopsis (or "sound bite") for each of the nine areas defined below. It is important to make the synopses as explicit and informative as possible. The roadmap must also cross-reference the proposal page number(s) where each area is elaborated. The nine roadmap areas are:
 - Main goals of the proposed research.
 - Critical technical barriers (i.e., technical limitations that have, in the past, prevented achieving the proposed results).
 - Main elements of the proposed approach and quantification of expected results.
 - Rationale that builds confidence that the proposed approach will overcome the technical challenges listed in Section 3.1, Program Milestones. ("We have a good team and good technology" is not a useful statement.)
 - Justification that Phase II metrics (the ultimate goals) are achievable by building on the experience in Phase I.
 - Specific capabilities of systems integrator (documentation of previous experience and accomplishments with diverse, multidisciplinary efforts).
 - Uniqueness of capabilities or approach.
 - Criteria for scientifically evaluating progress and capabilities on an annual basis.
 - Cost of the proposed effort for each performance year.
- C. Statement of Work {3 Pages}. Detailed statement of work outlining the scope of the effort and citing specific tasks to be performed, references to specific subcontractors, if applicable, and specific contractor requirements.

D. Research Objectives {2 Pages}

Strategic Description. Provide concise description of strategies used to address problematic areas in this research project. Research Goals. Identify specific research goals of this project. Identify and quantify expected performance outcomes from this research with respect to metrics described here and in the BAA. Describe new capabilities enabled by this research and how such advances address program goals.

E. Technical Approach {7 Pages}

Detailed Description of Technical Approach {5 Pages}. Provide detailed description of technical approach(es) that will be used in this project to achieve research goals. Specifically identify and discuss how advances will be incorporated into the final product. In cases were multiple/competing armor concepts are pursued the technical approach should clearly specify how these will be evaluated and down-selected for further study.

Comparison with Current Technology {2 Pages}. Describe how the proposed armor approach

Comparison with Current Technology {2 Pages}. Describe how the proposed armor approach will improve upon commercially available armor materials, including performance, cost, material availability, etc.

F. Schedule and Milestones

Schedule Graphic {1 Page}. Provide a graphic representation of project schedule including detail down to the individual effort level. This should include, but not be limited to, a multiphase development plan that demonstrates a clear understanding of the proposed research. Show all project milestones. Use absolute designations for all dates. Detailed Individual Effort Descriptions {2 Pages}. Provide detailed task descriptions for each individual effort and/or subcontractor in schedule graphic.

- G. Deliverables Description {2 Pages}. List and provide detailed description for each proposed deliverable. Include in this section all proprietary claims to results, prototypes, or systems supporting and/or necessary for the use of the research, results, and/or prototype. If there are no proprietary claims, this should be stated. The offeror must submit a separate list of all technical data or computer software that will be furnished to the Government with other than unlimited rights (see DFARS 227). Specify receiving organization and expected delivery date for each deliverable.
- H. Personnel and Qualifications {2 Pages}. List of key personnel, concise summary of their qualifications, and discussion of proposer's previous accomplishments and work in this or closely related research areas. Indicate the level of effort to be expended by each person during each contract year and other (current and proposed) major sources of support for them and/or commitments of their efforts. DARPA expects all key personnel associated with a proposal to make a substantial time commitment to the proposed activity. The principal investigator must be included as a key person and must be a full-time employee of the organizing facility.
- I. Facilities {1 Pages}. Description of the facilities that would be used for the proposed effort. Since this is expected to be a multi-team effort, the proposal should make clear which facilities will be used for which portion of the effort. If any portion of the research is predicated upon the use of Government Owned Resources of any type, the offeror shall specifically identify the property or other resource required, the date the property or resource is required, the duration of the requirement, the source from which the resource is required, if known, and the impact on the research if the resource cannot be provided. If no Government Furnished Property is required for conduct of the proposed research, the proposal shall so state.

6.2 Volume 2: Cost

The cost volume shall begin with a single cover page that includes the following:

BAA number;

Lead organization submitting proposal;

Type of business, selected among the following categories: "LARGE BUSINESS," "SMALL DISADVANTAGED BUSINESS," "WOMAN OWNED BUSINESS," "SERVICE DISABLED VETERAN OWNED," "OTHER SMALL BUSINESS," "HBCU," "MI," "OTHER EDUCATIONAL," or "OTHER NONPROFIT";

Contractor's reference number (if any);

Other team members (if applicable) and type of business for each;

Proposal title;

Technical point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), electronic mail (if available);

Administrative point of contact to include: salutation, last name, first name, street address, city, state, zip code, telephone, fax (if available), and electronic mail (if available);

Award instrument requested: cost-plus-fixed-fee (CPFF); cost-contract--no fee; cost sharing contract--no fee; or other type of procurement contract (specify), grant, cooperative agreement, or other transaction;

Place(s) and period(s) of performance;

Total proposed cost separated by basic award and option(s) (if any);

Name, address, and telephone number of the offeror's cognizant Defense Contract Management Agency (DCMA) administration office;

Name, address, and telephone number of the offeror's cognizant Defense Contract Audit Agency (DCAA) audit office;

Date proposal was prepared;

DUNS, TIN, CAGE CODE; and

All subcontractors' proposal backup documentation to include items 1-16 above, as applicable and available.

Cost proposals are subject to no page limits and shall provide a detailed cost breakdown of all costs, including cost by task, with breakdown into accounting categories (labor, material, travel, computer, subcontracting costs, labor and overhead rates, and equipment), for the entire contract and for each calendar year. All subcontractor proposal backup documentation should include the information requested in the Cover Page detailed above. Where the effort consists of multiple portions that could reasonably be partitioned for purposes of funding, these should be identified as contract options with separate cost estimates for each.

Offerors should expect to participate in teams and workshops to provide specific technical background information to DARPA, attend semi-annual Principal Investigator (PI) meetings, and participate in numerous other coordination meetings via teleconference or Video Teleconference (VTC). Funding to support these various group experimentation efforts should be included in technology project bids.

Supporting cost and pricing information should be provided in sufficient detail to substantiate the summary cost estimates. Include a description of the method used to estimate costs and

supporting documentation. Note: "cost or pricing data" as defined in the Federal Acquisition Regulation (FAR) Subpart 2.101 shall be required if the offeror's proposal is for a procurement contract award of \$550,000 or greater unless the offeror requests an exception from the requirement to submit cost or pricing data. "Cost or pricing data" are not required if the offeror proposes an award instrument other than a procurement contract (e.g., a grant, cooperative agreement, or other transaction). The requirements for submission of "cost or pricing data" are specified in FAR Subpart 15.403-4 (see http://www.arnet.gov/far).

6.3 Organizational Conflict of Interest

Awards made under this BAA may be subject to the provisions of the Federal Acquisition Regulation (FAR) Subpart 9.5, Organizational Conflict of Interest. All offerors and proposed subcontractors must affirmatively state whether they are supporting any DARPA technical office(s) through an active contract or subcontract. All affirmations must state which office(s) the offeror supports, and identify the prime contract number. Affirmations should be furnished at the time of proposal submission. All facts relevant to the existence or potential existence of organizational conflicts of interest, as that term is defined in FAR 2.101, must be disclosed in the proposal, organized by task and year. This disclosure shall include a description of the action the contractor has taken, or proposes to take, to avoid, neutralize, or mitigate such conflict.

7.0 Evaluation and Funding Process

Proposals will not be evaluated against each other, since they are not submitted in accordance with a common work statement. DARPA's intent is to review proposals as soon as possible after they arrive;. For evaluation purposes, a proposal is the document described in Section 6.0, Proposal Format. Other supporting or background materials submitted with the proposal will be considered for the reviewer's convenience only and not considered as part of the proposal. DARPA reserves the right to request an oral presentation of proposals. If such a request is made, it is expected that, to the extent possible, all key personnel on the team will be present. The request for an oral presentation, or lack thereof, should not be construed as either a positive or negative assessment of the proposal.

The Government reserves the right to select all, some, or none of the proposals received in response to this solicitation and to make awards without discussions with offerors; however, the Government reserves the right to conduct discussions if the Source Selection Authority determines them to be necessary. Proposals identified for funding may result in a contract, grant, cooperative agreement, or other transaction depending upon the nature of the work proposed, the required degree of interaction between parties, and other factors. If warranted, portions of resulting awards may be segregated into pre-priced options.

The following evaluation criteria are listed in order of decreasing importance. Proposals that are deemed unsatisfactory in Scientific and Technical Merit will not be evaluated further.

Scientific and Technical Merit of the Proposal

Proposers must demonstrate that their proposal is innovative and unique, that the technical approach is sound, that they have an understanding of critical technical issues and risk and that they have a plan for mitigation of those risks. A significant improvement in capability or

understanding above the state of the art must be demonstrated. All milestones must be clearly and **quantitatively** described.

The following areas of evaluation will be used to assess the offeror's proposal:

1. Concept

The extent to which:

- The Offeror demonstrates understanding of the TCLA program vision and objectives
- The Offeror's proposed concept meets or exceeds the overall objectives and performance provided in the BAA and PIP.
- The Offeror's proposed technical system solution is supported by lab experiments, 1st order analysis or other reasonable basis that substantiates proposed assertions of either meeting or exceeding program goals at the system level.
- Extent to which the offeror identifies an innovative, plausible and robust concept. As well as accomplish and execute an efficient and reasonable development path to achieve phase 1 objectives.

2. Technical Approach (TA)

The extent to which:

- The TA process is robust in identifying critical technologies, processes and armor attributes.
- The TA is detailed in evaluating and down selecting among various competing concepts.
- The TA is comprehensive and fully explores the available trade space.
- The TA includes a robust assessment of the range of available technologies across government and industry.
- The offeror has identified and understands the technical challenges and provides the development approach to get to the solution.
- The Offeror's major technology maturity path is realistic, considers achieving demonstration in later Phases but is not risk adverse.
- The tools and methodologies to be utilized are credible, appropriate, sufficient, validated and are applied rationally.

3. Statement of Work (SOW)

The extent to which:

- The Offeror's proposed SOW concisely and fully describes the efforts to be undertaken
- The Offeror's proposed SOW is consistent and traceable to other parts of the technical proposal
- The SOW is inclusive of major tasks and demonstrates foresight into likely activities

4. Schedule

The extent to which:

- This includes all tasks described and proposed in the SOW and TA required to achieve the goals requested in the BAA and PIP.
- This clearly identifies the dependent links of relations, gates and milestones for trade analysis decisions and milestones as proposed in the TA.
- This is detailed and reasonable given the SOW.

To be fully successful in this criterion, proposers must demonstrate that their proposed effort is based on a sound scientific and technical understanding of the TCLA program and its defense applications. There must be some novel and creative ideas in the proposal to warrant a high score in this criterion. Furthermore, the proposal must outline credible approach to design and fabrication of high performance and cost effective armor systems and present a comprehensive plan as to how key challenges will be overcome by the effort proposed if successful. Risks should be identified and mitigation approaches presented.

Value to Defense

Proposers must demonstrate the potential of successful research to radically change the capability of armor for the military. This must include a discussion of the state of the art and how this program will dramatically improve it. A critical part of this evaluation criterion is the approach used to ensure that there is a feasible transition path from the research phase of this effort to the use of the armor systems by the military (i.e., that the armor fabrication can be cost-effective and reproducible).

The following areas of evaluation will be considered when assessing the offeror's overall value to defense:

Operational Vision and Transition Plan

The extent to which:

- The Offeror proposed notional concept of employment and proposed notional system concept are unique or would enable new operational capabilities and potential missions to Department of Defense.
- The likelihood that the proposed effort will result in the development of basic knowledge, unique armor systems, and broadly applicable design rules and tools.
- The offeror teams or collaborates with DoD laboratories, suppliers, and the user community to ensure armor development for defense systems.
- The offeror identifies multiple innovative applications to advanced defense systems in the proposed research and development effort.

To be fully successful in this area, offerors must provide a detailed path to application of the technology in military systems. They must demonstrate a clear knowledge of military requirements and indicate the manner in which the technology will transition.

Capability of the Personnel and Facilities to Perform the Proposed Effort

Proposers must demonstrate that their team has the necessary background and experience to perform this project. The balance of the technical capabilities of the team must match that required in the program plan. The relevant experience of key personnel must be sufficient to provide confidence that the proposers can accomplish their objectives. Proposers must demonstrate that the combined facilities of the team are sufficient to accomplish the objectives of the proposal.

The following areas will be evaluated:

1. Management Construct The extent to which:

- The management process is based on any integrated product and process development protocol.
- Application of tracking tools used updating schedules, cost and tech performance.
- Any streamlined and innovative business, teaming and technical management practices (efficiencies and values).
- Identification of appropriate milestone products and accomplishment criteria.
- The offeror has addressed the planning, management, system engineering and software development processes, recurring cost approach, security and qualified program team to successfully accomplish the tasks defined in their proposal.
- Adequate process for subcontractor and vendor management discussed and is credible.
- A description of responsibility of key personnel and team organization structure.

2. Team/Key Personnel The extent to which:

- The proposed Program Manager has experience managing system development programs of the described scope and complexity entailing the maturation of advanced and innovative technologies and possesses a good grasp of a broad range of technical disciplines and demonstrated capability to manage program cost and schedule elements.
- Key personnel make up and qualification. The proposed key personnel possess a demonstrated capability to integrate multiple and complex technical activities entailing the maturation of advanced and innovative technologies
- Proposed key personnel cover the breadth of technical expertise required to achieve the goals of the TCLA program.
- The team's ability to execute the program from concept design, fabrication and test, including the demonstrated ability to produce systems of this complexity (all phases).

3. Facilities

The extent to which:

• The proposed team has defined its facilities or the plan to access facilities required to execute all phases of the TCLA program effectively and efficiently.

4. Past Performance

The extent to which:

- The proposed team has prior experience in similar efforts and has shown the ability to meet technical performance requirements within the proposed schedule and budget.
- The proposed team has demonstrated relevant experience in fields related to the design of TCLA armor systems.
- A comprehensive list of POC information, task description, relevance of past performance description from related programs.

Cost Realism

Costs of the proposal must be reasonable and provide a high value to the Government.

The Offeror's proposed cost will be evaluated to the extent which:

- Extent to which the offered program is affordable
- Extent to which the cost items are complete to the details requested in the BAA or PIP, WBS budget allocations substantiate the scope of work identified and considered in total program costs including any Government furnished equipment or facilities.
- Extent to which proposed cost is realistic, credible, and substantiated to the scope of the proposed program

8.0 Guidance for Classified Information and Data

The Government anticipates that proposals submitted under a BAA will be unclassified. In the event that a proposer chooses to submit a classified proposal, the following information is applicable. Security Classification guidance on DD Form 254 will not be provided at this time since DARPA is soliciting ideas only. After reviewing the incoming proposals, if a determination is made that the award instrument may result in access to classified information, a DD Form 254 will be issued and attached as part of the award. Proposers choosing to submit a classified proposal must first receive permission from the Original Classification Authority to use their information in applying to this BAA. An applicable classification guide should be submitted to ensure that the proposal is protected appropriately. For instructions on submitting classified proposals, contact Security & Intelligence Directorate (SID) Classification Management at (571) 218-4841.

9.0 Administrative Addresses

Web address for Full Proposal Submission: http://www.sainc.com/dso0609/

DARPA/DSO, ATTN: BAA06-09 3701 North Fairfax Drive Arlington, VA 22203-1714

Electronic Mail: BAA06-09@darpa.mil

Related URLs:

BAA 06-09: http://www.darpa.mil/baa/#dso

PIP for BAA 06-09: http://www.darpa.mil/dso/solicitations/tcla PIP.pdf

Teaming Website and FAQ's for BAA 06-09: www.sainc.com/TCLA Teaming

Point of Contact: Leo Christodoulou Program Manager, DARPA/DSO

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